

Product Evaluation

SHU152 | 0620

Engineering Services Program

The following product has been evaluated for compliance with the wind loads specified in the International Residential Code (IRC) and the International Building Code (IBC).

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.

For more information, contact TDI Engineering Services Program at (800) 248-6032.

Evaluation ID: SHU-152

Effective Date: June 1, 2020

Re-evaluation Date: June 2024

Product Name: Force 12 Series 100 Diamond Screen Fabric Storm Panels, Impact Resistant

Manufacturer: Hendee Enterprises, Inc.
9350 South Point Drive
Houston, TX 77054
(800) 231-7275

General Description:

The Force 12 Series 100 Diamond Screen Fabric Storm Panels are a fabric windborne debris protective system. The system consists of a fabric storm panel system that is applied over an exterior opening and is secured to the exterior of the structure with fasteners.

The Diamond Screen Fabric Storm Panels may be oriented either vertically, with the mounting hardware located at the top and the bottom, or horizontally with the mounting hardware located at the left and right ends of the panels.

The Diamond Screen Fabric Storm Panels may be installed with a zipper for use as an emergency exit.

The fabric storm panels consist of the following components:

Fabric: 100 percent polypropylene constructed of nineteen (19) 0.052" wide filaments, both horizontally and vertically, per square inch of fabric. Each filament is made up of three (3) 0.013" wide filaments in a 3/4" basket weave network and calendared such that the filaments retain dimensional stability relative to each other. Each corner of the fabric panel is reinforced with two (2) layers of screen material. Along the fabric edges with grommets, there is a 2" wide double fold with webbing. Each corner of the panel is reinforced with 2 layers of screen as shown on the approved drawings.

Grommets: #2 spur grommet, 1/2" hole diameter, 7/8" flange diameter. The grommets are installed along the perimeter of the fabric, a minimum of 1" from the fabric edges. The spacing of the grommets must be as specified in this evaluation report.

F Track: 1.690" x 0.375" x 0.060". Manufactured of 6063-T6 aluminum.

Studless Angle Track: 2.00" x 2.00" x 0.060". Manufactured of 6063-T6 aluminum.

Reverse F Track: 2.00" x 2.00" x 0.060". Manufactured of 6063-T6 aluminum.

Product Identification: Each fabric panel must have a label that identifies the manufacturer (Hendee Enterprises, Inc.); the name of the product (Force 12 Hurricane Protection Series 100-Diamond Screen); and the test standards (ASTM E330-02, ASTM E 1886-05, ASTM E 1996-09, Missile Level D).

Limitations:

Design Drawings: Force 12 - Series 100 - Diamond Screen, Sheets 1-7 of 7, dated October 31, 2012. Each sheet is signed and sealed by James R. Bailey, P.E on April 19, 2020. The stated drawings will be referred to as "approved drawings" in this evaluation report. A copy of the approved drawings must be available at the job site during inspection.

Wall Framing Construction: The fabric storm panel may be mounted to either pre-cast or cast-in-place concrete (minimum concrete compressive strength of 3,200 psi), hollow or grout-filled concrete block, or minimum Southern Yellow Pine dimension lumber.

Mounting Conditions: The following mounting conditions are permitted: Direct Mount (non-zipper), Direct Mount (zipper), Track Mount (zipper), Track Mount (non-zipper)

Maximum Allowable Supported Span: The maximum allowable supported span is the distance between reinforced fabric edges with fastener (grommet) spacing as specified in the approved drawings for the performance of the product. Refer to the approved drawings.

Maximum Allowable Unsupported Span: The maximum allowable unsupported span is the distance between the non-reinforced fabric edges. There is no limit to this dimension. These two edges are not required to be anchored for the performance of the product. Refer to the approved drawings.

Panels with Zippers: The minimum distance from the edge of a panel to the centerline of a zipper is 18 inches. Refer to the approved drawings.

Maximum Design Pressure Rating: The allowable design pressure rating for the fabric panel varies as a function of wall framing, span, mounting condition, zipper or non-zipper, and fastener type. The maximum allowable design pressures is +/- 72 psf. Refer to the approved drawings for the appropriate design pressure.

Impact Resistance: This assembly satisfies the Texas Department of Insurance's criteria for protection from windborne debris. The assembly may be installed at any height on the structure as long as the design pressure rating for the assembly is not exceeded.

Minimum Separation Distance: There is no minimum separation distance between the fabric and the glazing for this shutter system. Refer to General Note No. 13 on page 1 of 7 of the approved drawings.

Installation:

General: The assembly must be installed in accordance with the manufacturer's installation instructions and this product evaluation report. Detailed installation instructions and design drawings are available from the manufacturer.

Installation Requirements: The Force 12 Series 100 Diamond Screen Fabric Storm Panels must be installed in accordance with manufacturer's installation instructions, the approved drawings, and this product evaluation report.

Storage: The Force 12 Series 100 Diamond Screen Fabric Storm Panels is designed to be removed when not in use. Following the initial installation of the system, the assembly should be removed and stowed away. It is recommended that the fabric panels be marked or labeled in some manner to identify the proper exterior opening they will cover on the structure.

Note: Keep the manufacturer's installation instructions and drawings available on the job site during the installation. Use corrosion resistant fasteners as specified in the IRC and the IBC.